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The Eastern Poultryman.

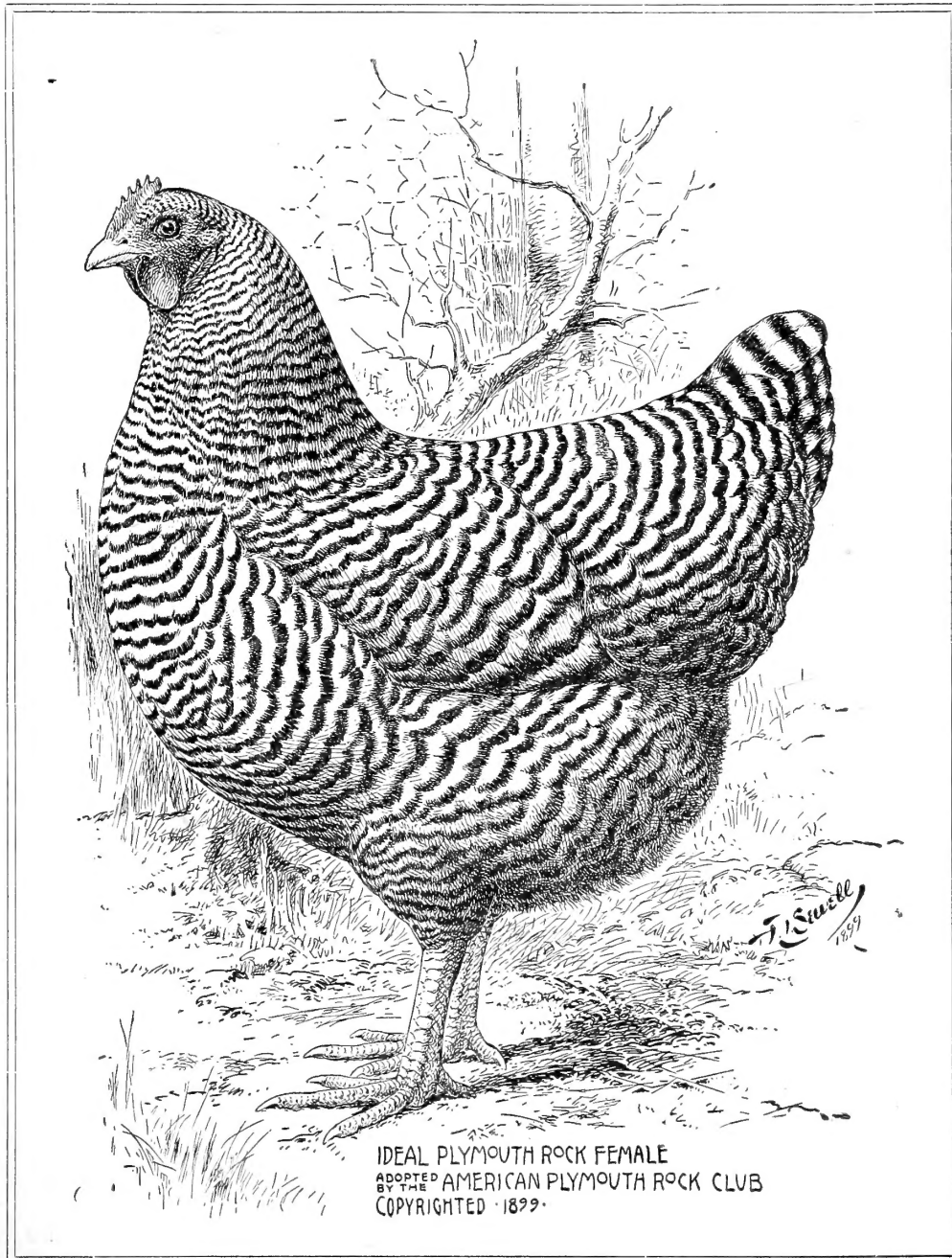
ESTABLISHED 1899 AS THE POULTRYMAN AND POMOLOGIST.

DEVOTED TO PRACTICAL POULTRY CULTURE.

Vol. 3.

South Freeport, Maine, September, 1901.

No. 1.



GOLDEN BUFF ROCKS. STANDARD BLUE BARRED ROCKS.

I have three yards of **Buff Rocks** mated for utility as well as standard points. They are early layers of rich brown eggs, and make the finest of poultry. I have won the leading premiums each year at the leading shows in the four years that I have bred them. **MY BARRED ROCKS are line bred and well known all over the country as I have been breeding this variety for more than 25 years.** With my long experience in mating, they breed true to feather and all other Standard points. As to utility, I have always saved my earliest laying pullets for breeding, so that it is as common for them to lay at four to five months, as it was a few years ago at seven to eight months of age. As to fine eggs, I won at the Maine Dairy Conference at Augusta, in December, the 1st and 2d prizes for Heaviest Dozen; also 1st and 2d for the **Best Brown Eggs**, size, shape and color considered.

I have three pens of Barred Rocks mated for this year's breeding. Fresh blood has been added to my flock, so that my old customers can still use my stock to mate with theirs. What is good for me is good for them.

Choice Stock Always For Sale.
I. V. MCKENNEY, West Auburn, Maine.

BRED ON PRACTICAL LINES...

BARRED P. ROCKS.

That are hustlers, and our egg records prove it. One pen gave a 100 per cent. egg yield for several days, they've been at it since last December too. I have two pens mated for this season; pen 1 headed by a fine "Latham" cockerel, and pen 2 by a fine "Colby" pullet breeder.

Eggs from these two varieties
\$1.00 per setting. Write me.

PEKIN DUCKS.

The deep keeled, quick maturing kind. One pen of 6 laid 102 eggs in 17 days, a record hard to equal. They have free water range in spring, thus assuring fertile eggs. Bred from the best "Long Island" and "Ran-kin" stock.

Fred L. Davis, So. Freeport, Me.

MAINE BRED BUFF LEGHORNS.

At the largest show ever held in America, my Buffs won more 1st and 2nd prizes than all others, winning 1st Cock, 1st and 2nd Hen, 4th Cockerel, and 1st, 2nd and 3rd pullets—7 prizes on 8 entries. Hens are extra large. I have May hatched pullets weighing 6 to 6 1/2 lbs. each. My Leghorns are the kind that lay through the winter, and side by side with hens of the American class, I have received nearly twice the eggs during the year.

I have a few nice Cockerels for sale,—own brothers to my Boston winners.

Eggs from my best matings, \$3.00 for 15; \$5.00 for 26. Incubator eggs \$10.00 a hundred.

If you are looking for up-to-date hens, I can please you.

EDW. M. DEERING, Biddeford, Maine.

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THE WINNING BARRED ROCK MALES AT THE GREAT NEW YORK SHOW FOR ...THE PAST TWELVE YEARS...

Have been bred in the yards of Bradley Bros., Lee, Mass. This should be conclusive evidence that there is no better strain of this popular variety in America. My original cock was purchased of Bradley Bros. direct. Only my choicest birds have been reserved for breeders, and these, with new blood from the yards of Messrs. Bradley, have been carefully line-bred from year to year. Not a single bird in my yards but what is closely related to these New York winners. One pullet is a sister, by sire, to the winning New York cock, 1900, and winning New York cockerel, 1901. My birds have not been bred for beauty alone but for egg production as well. There are no better layers on earth. Eggs from 4 grand pens, 2 mated for cockerels and 2 for pullets, \$1.50 per setting of 15. They are worth more. Book orders early.

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LIGHT BRAHMAS

Eggs \$1.00 for 15 \$5.00 for 100

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239 Wind. Avenue
Auburn Maine, U.S.A.
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Green Bone Cutters.

Mann's, Stratton's, Wilson's and Stearns' Green Bone Cutters sold at a reduction from regular prices. You save money if you buy of the Manufacturer's Agent.

G. A. Osborn, Leominster Mass.

BANTAMS.

Buff Cochins Exclusively.

Eggs from prize winning stock at \$2.00 and \$3.00 a setting.

C. R. CHASE, - - NEWBURY, MASS.

White Wyandottes and Barred P. Rocks . . .

Eggs 75c. per Setting. \$4.00 per 100.

We are breeders of "Mack" W. Wyandottes and "Rudd" P. Rocks, both layers of **Dark Brown Eggs**. Bred for business and utility. This price is for introduction. Orders booked now for future delivery.

Dealers as well in **Poultry Supplies**. Belle Brand Oyster Shells, 45c. per bag, \$7.00 per ton. White Flint Grit, 35c. per 100 at factory. Special prices of Cypher's Incubators, Champion Brooders and Wilson Bone Cutters. Let us quote you on anything wanted in supplies. Our expenses are low; we give you the benefit.

JOHNSON BROTHERS, Woodfords, Me.

Farm on Riverton Road.

Maplecroft White Wyandottes.

Won at Milford Poultry Show in 1899, eight breeders competing for the 20 regular prizes. I won ten or as many as all others. Also special for **10 highest scoring**. Five specials in all. At the last show, (1900), I won 10 regular and 7 specials, including special for **10 highest scoring**. In 5 years have won 13 of the 25 first prizes, or one more than all others combined. Eggs, \$2.00 per 13.

G. A. NEWHALL,

Caryville, Mass.

The Eastern Poultryman.

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SHEPHERD'S MEDLEY, II.

Do it now — Eggs easily handled — Crops for Poultry — A good flock — A Poultry building — Success — Exercise.

(Written for the Eastern Poultryman.)

What would any of the great projects or enterprises of this world amount to if everything was put off until some future time? Would ever the coveted goal be reached? No, not if everybody put off till some other time what they should do today. When a man enters into business of any kind whatever, if he has a desire for success, if he desires to receive a favorable result from his work, he must do the work when it is needed. If it should be done now he must do it now.

Just so with a breeder of fowls. He must do now what needs to be done now. If his building needs to be cleaned out, what will he save by delay? It is dangerous to delay. Delaying to keep the coop clean will in nine cases out of ten be a costly plan. It may cause some sick fowls, besides making the building anything but pleasant for the fowls. Anyway, you would not care to enter a filthy house. Never put off till tomorrow what you can do today. Those eggs you were going to order or those that you were going to send to market had better be attended to at once—now. Now is the accepted time. Tomorrow may be too late. How many times we meet people who say, "I ought to do this, or that, but—" well he gives some excuse for his delaying yet what is the use of making up an excuse when he is not doing anything at all and could just as well as not do all that was necessary and thus save making up an excuse and could have his mind at rest. Now a breeder of poultry who is trying to make a success of it never acts in that way. He just does the work when it is needed to be done and then the thought of having to do it is not continually coming up before him and he is ready to rest until some other job comes up. There is a satisfaction in knowing that your work is done up to the present time and that nothing is hanging back or rather left behind to be done tomorrow, probably never, or at least not until it has caused a loss in some way or other. Do what needs to be done now and do not under any circumstances put it off. What is worth doing at all is worth doing when it needs to be done. * * * * *

Do all those who enter their objections against poultry not paying ever stop to consider how easily eggs are handled when compared with grain and other farm products? It is a very easy matter to market the eggs. It is no more work to care for hens than it is to care for any live stock or to plow and prepare the ground for grain, and to harvest the grain is a still worse job. It is much easier to care for the hens than to do all this work. And the labor is not anywhere so hard. In fact the labor is nothing at all when comparing the caring of fowls

with the raising of grain. Caring for fowl is simply light work and a continual work of feeding, watering, cleaning out the buildings, and really doing just what is needed at the proper time. Raising fowl has a special advantage in favor of those who are unable to withstand hard labor.

Those who could not go into the field and meet all the exerting work there, can go to the poultry field and there make a reasonable if not an extra good income when they manage the work properly. Some say that they would rather work at plowing, etc., rather than fuss with chickens. If they had rather do so then let them do it. But whoever wants an easier work let them turn to poultry. An experienced person will find it easier to care for poultry than will an inexperienced one, simply because he knows how. It is one thing to be able to do a thing and another to know how. In order to make the work easiest the breeder should make every possible convenience that can be made, thus avoiding any unnecessary work. If it was not for the ease with which the work is accomplished there would not be the hundreds and hundreds of fanciers that there are now scattered over the land.

* * * * *

Raising crops for the poultry is a plan that should be followed by any who can do so if he is a breeder of a large flock of fowl. All who have used clover hay for the fowl have found it to be a valuable food. It is a substitute for green food; it contains the elements necessary to egg production; it can be raised in large quantities on a comparatively small area. Also great crops of roots can be grown in a small space. Sugar beets, mangels, carrots, potatoes, etc., are valuable to grow for the fowl. These will give the fowl a greater variety in their winter food, and they will be bulky food for them as they do need such food and at the same time they save grain. The roots cost less than grain and are thus valuable. A poultryman must be careful to make everything count in his work. In no business is the old saying "A penny saved is a penny earned," more applicable than to that of poultry raising. In every way that he can save in expense such as for feed, etc., so much is his profit increased. Fowl that are kept in small yards during the summer need crops grown to be fed them every day. Lettuce is a valuable crop to be grown for summer feed as large quantities are produced in a small space. Cabbage can be grown and the well-formed heads sold in the market and the poorly formed heads and those that do not form heads may be profitably kept to be relished by the fowl next winter. Rye sown in the fall furnishes fall and winter pasture for the fowl. Green food is absolutely necessary for both summer and winter use. It is their medicine, oftentimes more valuable than a whole gallon of medicine. It pays in the end to give especial attention to this part of the work.

* * * * *

You have a good flock of fowl. Some

one else says that he has a good flock of fowl. Yet there is a vast difference between the actual value of the two flocks as viewed from a true fancier's standpoint. In a flock of fowl that are to be considered *good* there must be something to give them a stand above those that are compared with them. A really good flock of fowl must be above the ones that are only ordinary. They must excel in some way or other. If they are not good layers or at least not up to the average in their class they can scarcely be called good. If not layers and not good exhibition birds then their only *good* value would be in the price which they would bring when sent to market and the sooner a poor fowl is sent there the greater will be its profit. How many times is a number of worthless fowl kept in a flock of good ones! The result from such a practice is this: the worthless ones do not lay enough egg to pay for their feed while the good ones must, in order to give any profit to the owner, pay for their own feed, and also that which the worthless ones failed to pay and what they lay after that is profit. A small number of *culls* in a small flock of fowl may reduce the profits to apparently nothing. So we see that it is better and far more profitable to keep a flock of really good fowls than to keep a flock of twice as many birds with a number of worthless ones in it. A *good* flock of fowl could rarely be anything but pure-bred birds. Others may occasionally equal pure ones in egg production or market value yet the cases are rare and still more so are the times when anything will excel a pure bird. If we are to raise a good flock of fowls we must have good stock to start with. Get as good as circumstances will permit. A very few good ones will pay in the end more than will a large number of a cheaper grade. Of course our good fowls have been, by careful selection year after year, brought up to a high standard from a beginning of less valuable ones. Yet in this great age of advancement we have not time to begin with cheap fowls and try to build up a winning class of birds when we could at a small additional expense get the best.

The farmer needs good fowls just the same as does one who is a poultry breeder alone. The farm is the ideal place in which to raise *good* birds. The value of a *good* flock of birds on a farm is more than enough to pay easily the additional expense of procuring the better ones. *A good flock of fowls is a flock that gives a good profit in every branch of the work.*

* * * * *

A good serviceable house for thirty to forty hens may be built at a reasonable cost if careful thought and planning is given before building. The building that would suit one might not suit another. Yet most breeders do not look so much to the beauty of the house as they do to its convenience and practical value. Its convenience depends on its location, and on its interior arrangements. Its practical value depends on how it serves the purpose for which it is to be erected, the

of giving the necessities required to make the fowls profitable. Most breeders seek for a plan that will give the least cost without sacrificing any of its valuable points. We find that scarcely any two breeders have their buildings just alike. What suits one does not suit the other. What one would consider a very convenient building another would think it far from being convenient. For one of the cheapest buildings that would serve the purpose well, I would build somewhat as follows:

Make it twenty feet long and ten feet wide, seven and a half feet high in the rear, facing the south. I would board it all around with rough lumber and then batten the cracks. On the inside would cover with building paper, which can be purchased at fifty cents per roll, leaving an air-space between the outside and the building by using studding three inches thick, one inch boards three inches wide will answer the purpose of studding. Then I would cover the entire inside of the building, roof included, with thin matched stuff. If matched stuff was considered too expensive, then other thin boards could be used. This makes the building air and wind proof and the air space gives a more equable temperature and also makes the house much warmer.

On the front south side, there would be two windows, each containing twenty-four 8 x 10 glass.

This building would be divided into two pens. The outside door would be placed on the south or east, whichever would be most convenient. If only small fowls such as the Mediterranean class were to be kept each pen would have three roosts each five feet long raised six inches above the dropping boards, which in turn are two feet above the floor. I would place the roosts in the northwest corner of each pen. The ends above the dropping boards should be boarded up tight so as to make it warmer in winter; and with a curtain to let down in front on cold nights we could save many a frosted comb and besides make the flocks far more comfortable. The nests would be fastened to the side of the building. In this way the fowls would have the entire floor space in which to work for their feed. Small boxes for grit and shells should be fastened to the side. And a box two feet square and a foot deep placed in the corner and filled two-thirds full of road dust or with road dust and sifted coal ashes, for a dust bath.

While the above building would be a very serviceable one for those who keep only fifty or a hundred fowls, yet if I were to keep several hundred birds I would just turn the house around, making the lowest side towards the south, placing the windows on that side and increasing the width three feet for an alley-way in the north side. In that case the dropping boards, nests, etc., would be placed next to the partition between the alley and the other part of the building. In this way the eggs could be gathered, the boards cleaned off and the fowls fed and watered from the alley. Thus we would have only to enter the pens occasionally and not a dozen times a day as is generally the case. Of course the alley-way would add to the expense of erecting the house, but, however, when a large number of birds are kept, the buildings must have every possible convenience. A cheaper building than this could be built, yet for this climate where we have cold winters, a much cheaper house would not serve the purpose as well. The building that I have described above could be

built much longer according to the number of fowls kept. I do not believe in separate poultry houses,—they make too much work and in cold weather make it a harder job to properly care for the fowls. Better have them all in one building and thus when entered once you can care for all of your fowls and not go our doors until all have received the proper attention. This going from one building to another and carrying feed and water in windy, rainy or snowy days is something not liked by anyone.

A building to be as serviceable as it should be must combine the necessities—warmth, light and convenience. The building that I have tried to describe above is warm, it has enough light, and if placed in a good place would or at least could be very convenient. And with proper feed and good care, I see no reason why fowls would not be profitable in such a house. One thing to be followed is this, never sacrifice any necessity such as a sunny location or a good warm place for the sake of convenience. Better put the building a little farther away than to get it in a shady place or a northern exposure. A warm roosting place and plenty of work for the hens is necessary for winter eggs, and of course for summer they need a cooler place or at least need no curtain in front of the roosts nor the windows closed.

Success is the result of patience and perseverance. The patient and persevering worker will make his mark in the world much sooner than will one who is far from being patient and persevering. In any work or business is this necessary. It takes time, it makes the work seem harder to go slow and give much thought and much painstaking work in any avenue of life if we are to make our success. But it pays to bear each disappointment, each misfortune and each trouble with patience. Never pay much attention to what has been done except to strive to excel it. In no other industry will this apply better than to that of poultry. The breeder needs patience to stand the many troubles that he meets. And he needs perseverance to get ahead again. He must fix his eyes upon the goal of success and let nothing stop him. It is the desire of all to win in some way. Win above some one else. Every one wants to get above his friends or competitors, he wants to raise better fowls, he wants to win more prizes and he wants to get more profit. It is a question to him, how is he going to gratify his desires? How is he to get what he wants? If he is to get what he desires he must do so by work. He must do what needs to be done and when it needs to be done. We have only to look around over the country and we can see the vast number of successful breeders, many of whom are and have been more successful than others. While on the other hand we see those who are not making much and have never made as much as could have been done if they had been more careful and more diligent in their work. Success will encourage a breeder more than anything else. If he can be successful, he is happy and is filled with joy over his favorable result. Success is justly earned by many. Anyone who has been patient and untiring in his efforts deserves the good fortune to make a good result from his work. He who gets success gets it only through his personal care and labor among the fowls. He tends his birds himself and he knows their needs and he knows what they do

not need. He gives them what they need as far as is possible. The result is far-famed success.

Of all things necessary to a good profit from the birds, exercise stands far up in the list. It is absolutely necessary. Everybody and everything needs a sufficient amount of exercise if they are to be healthy and active. The fowls must have it or they are not as profitable as they can be. We see how much it refreshes a person to exercise. How it builds up the wasted strength. If any person would go without exercise for a long time and eat much food he would not be healthy. Now we often see a lot of fowls managed in just this way. They have grain, usually corn, thrown down before them and they eat all they want and do not exercise at all. They are not obliged to work for their feed, just simply eat it. And then the owner grumbles and grumbles about his hens. They don't pay for the grain that they eat. They are worth less as far as profit is concerned. Well the fact is, that they are profitless. Their feed costs much and the eggs that they lay are few in number. If made to work for all that they eat they would be in a better condition for laying eggs. Hens will work if made to do so, especially the less active breeds. Some breeds will work anyhow if given half a chance, or at least they won't get so fat as to stop their laying. Now if exercise,—work, will make hens lay why not give it to them? Yes, give them exercise and they will be more healthy and lay more eggs. In winter is when they need it especially, yet if yarded in summer they need plenty of exercise. Fowls on a range will exercise enough unless fed too much. Better make them hunt most of their feed.

And the growing chicks, do not neglect to make them exercise. Scatter small seeds in a litter and see how they will avail themselves of the opportunity. They like to dig and scratch for the seeds. It makes them grow so fast that you can almost see them grow. The idle chick never amounts to anything, any more than does the idle hen. Exercise is essential.

P. W. SHEPARD.

New Albany, Pa.

Development.

[Address delivered by HENRY HALES before the 1901 class in Poultry Culture at the Rhode Island Experiment Station.]

In my talk to the poultry class of this college last year I considered the origin and distribution of poultry and season for their finding favor with the early races of man in so great a part of the world. As I suppose most of you here present are not the same persons I addressed then, it will be well to go over a few of the same topics again.

Man in very remote ages kept animals in so-called domestication, which we know from their bones being found in caves and buried with human remains. There is no doubt that primitive man selected such animals or birds that would be most serviceable for his pleasure or profit and suitable to their mode of life and enjoyment. It must not be supposed that they selected fowls for their tameness alone, as there are other wild birds which when bred in domestication are even tamer than fowls.

We can see in our various domestic breeds of poultry that each specie has a tameness or natural habits of its own.

For instance, the cock and hen have different tameness and habits to ducks, and ducks a separate nature from geese, and all unlike the Guinea fowl, turkey and peafowl. It will not take you long on a farm to notice these peculiarities of their differential natures and to find they cannot be changed by man in domestication. There is in each and every specie certain traits and dispositions that are indelible, and domestication has little or no control to modify after the first generation of confinement. Of course, there are individual exceptions as to degree, and there is much in the manner in which they are treated, but their capability of learning is limited to their natural capacity specifically.

Fowls (I am now speaking of the cock and hen) have a determined liking for certain roosting places. Ducks, if they live near a brook, will wander off sometimes, and at night, finding more music in the croaking of the frogs than in their owner's voice, will not return. I once had some Aylesbury ducks that would watch me coming to fetch them home off a brook when wandering far from the house. They would see me a long way off and hide under a little, low bridge where I could not see them. I could only poke them out with a long pole.

Ducks naturally lay at night, but if let out very early they get the habit, many of them, of holding their eggs to lay away, hiding them.

The nature of turkeys is peculiar to them. They care little for cold and less for inside any buildings when they can get food outside.

Guinea fowls are extremely cunning and will take great pains to hide their eggs.

The peacock's domestication is a very limited one. Although bred by man for thousands of years they, if restrained even in large enclosures, seldom, if ever, lay when they find they are restrained.

I have only to mention these commonplace facts to show the different tameness that exists in every specie of all animated nature which is inherited and unchangeable. To treat fowls successfully one must know their nature and use means accordingly. You may drive a flock of turkeys a long way on a road, but do not try to drive a flock of hens in the same way.

Of the origin of our domestic poultry there is no doubt. Careful investigation has settled that by the physical comparison to the *Gallus bankiva*, the voices, disposition, and, in fact, everything except size, and that is accounted for by the variability and plasticity of its nature.

We find a great difference in the nature of species in the vegetable as well as the animal kingdom. Apples, pears, hickories and some other trees, the seedlings seldom, if ever, bear fruit on two trees alike, while seedling trees of other species vary but slightly. The same is true in the animal kingdom. Geese, turkeys, ducks and Guinea fowls do not vary much, while the peafowl—one of the longest known domesticated birds—varies but slightly. In the *Gallus bankiva* we find—or rather was found for us a long time ago—a nature so plastic as to offer man a remarkable opening for his skill. Even in the wild state this specie is very sensitive to its environment, as they change in size and color in the different islands and parts of continents where natural. I have a letter from Theodore Sternberg, late

secretary of the American Poultry Association, and now Governor of Iloilo, stating that there are several colors and sizes of *Gallus bankiva* strongly resembling the Game strains. And we find in other parts of the world fowls vary much, but their habits and voices are the same, which could not be were they not identical in species.

Nothing could show the sportive tendency more than a large lot of what were called barnyard fowls fifty years ago. There were all colors—yellow, buff, white, black and red—short legs, long legs, crests, mugs, whiskers, and few people thought of breeding any in line by selection. Our yards are now so impregnated with our recent breeds that this great variation of nature in a great degree left us. Still there lies latent remote blood, or whatever we may call it, in the very highly bred varieties we take so much pride in. Think of these qualities lying dormant in all our fowls awaiting an opportunity to assert themselves, either by man leaving them to mix up again or by selecting to improve, as we may call it, some fancies of our own.

I will call your attention to a few facts concerning my experience in that line. I have seen on Japanese pictures fowls of many shades of color. We have only black and white in our Standard of Perfection. I procured only one cockerel that had a straw colored hackle and back. I also procured some all black, white and black tailed, and in two years they produced a great variety of colors. Some like the old birds, some light yellow, deep buff, grey and golden duckwing colors. I intend if I live long enough to breed in line buffs, goldens, silver greys and perhaps other colors. These little Japs are very likely the same fowls that Darwin mentions in his "Animals and Plants Under Domestication," Vol. I., page 298: "Creepers (short legged), one of the earliest mentioned of fowls from ancient Chinese encyclopædias, variously estimated at 1400 to 800 years B. C." and said to be small, so that the first intimation of fowls on record agrees somewhat to the Japanese Bantams. The probability is they were not all as small as some of our Bantams are now bred.

I notice the nearer these Japs approach the Game colors the longer they are on their legs. This brings me to say a little word on coloring.

The laws governing the colors of birds and poultry seem to have rules that are worth the attention of breeders. The nearer the color and shape approach the original type, the wilder the birds. Compare the Brown Leghorns to the Brahmas and Cochins. Buff or yellow runs into red and brown; slate color to drab; black to white; white to black. Whoever breeds black birds knows the difficulty of breeding out white or gray touches. Those who breed black breasted fowls, such as Silver Grey Dorkings, Black Red or Duckwing Games, or Dark Brahmas, have the nightmare of this intruding white. You all know the difficulty of keeping a clean, pure even buff or red tint over all the plumage. It is this law of reversion that puts in an obstacle.

I mention this to caution you against introducing any new blood from any strain that has the deep colors you want to avoid. In breeding for a time with the purest colored bird you will get clear colors of the shade you want. Compare in prepotency of form Pekin Bantams and Buff Cochins.

I will now say a little of a practical nature.

I will begin by saying that the poultry business is of such a nature that a man must have a love for nature, or at least a love for his fowls. Your lessons here in this college are of a grand character. How many have failed for the want of just the knowledge you get here, but for all that it must be supplemented with true love and sympathy to keep up that indefatigable labor that brings success.

Next I will tell you why there are so many failures in the poultry business. So many go into the business with little or no preparation; some go into it because they have heard that it is a light, genteel business, such as invalids or the weak—I will not say lazy person—can make a good and easy living. Such persons throw up the business after a short time with very peculiar ideas about the poor chickens.

Of mating, rearing and feeding you have already had plenty of the best talent to direct you, so I will touch only a few points that experience suggests to me.

In the first place, I think nothing is of more importance than the study of health in your flocks. In the poultry business I think there is very much that is confusing to the novice. Some recommend the only safe remedy—a sharp axe. Others have remedies for short breath, crooked toes, weak legs, and every ill that is known to poultrydom. As an expert florist can go through his greenhouses and note the condition of his stock, so must the expert poultryman understand his charges.

I am not treating on the diseases of poultry, so will not mention the remedies you require. They are carefully noted and recommended in works devoted to it, but I will say that no plant can be properly conducted without a supply of proper disinfectants and well tested remedies; for instance, a bird gets his comb frozen, another tears his comb and requires the stoppage of blood, some get fighting and require care to prevent the wounds taking on a malignant nature; most of all in the treatment of colds. This is the rock where many amateur poultrymen are wrecked. If an ordinary stimulating appliance does not entirely succeed watch for developments. When some are found (which are generally very few) that get worse, remove them and treat them with proper care, and the flock will go on as usual. I know a beginner in the poultry business who lost 100 out of 200 in his flock, simply because he did not know how to treat the first symptom. I do not pretend to say that you can save all the patients by this treatment, for some will seem determined to die, but it is certain you can save a large proportion, and they may be returned to the yards as well as ever.

One more confused confusion in the business is what the writers call lice, as big as horses; with a little more modesty they might as well have said elephants. The number of remedies, and expensive ones, pile up to the horror of the uninitiated. The mites, or acaria, that infest nests and houses are very easily kept down by very inexpensive means and little labor. All the rest are bred on and remain inhabitants of the fowl's body, some living entirely on feathers, the others on the blood of the victim, and are just as easily controlled by simple treatment.

Here let me say that these conditions must be attended to. They are not appalling in the magnitude of labor re-

quired; it is simply comprehending the situation and acting quickly. Avoid complications.

The poultry business requires as much vigilance, careful management and business methods as most pursuits.

HEREDITARY TENDENCIES.

The Importance of Unseen Forces in Breeding Stock — Why Many Breeders Fail in their Matings.

"And the earth brought forth grass and herb yielding seed after his kind."—Gen. 1: 12.

It is not said that "like produces like," nor is such the law of nature. It is not individual, but race characteristics that are transmitted from parent to offspring and the offspring greatly resembles the former only when both are typical of the race to which they belong. The size of an ear of corn grown on a good soil depends, not upon the size of the grain planted, but upon the kind of corn; a small variety producing small ears, a large variety large ears. The important consideration, therefore, in selecting seed for planting, or animals for breeding purposes is the race, rather than the individual. The fowl, for instance, might possess all the fine points of form and plumage required by the Standard, but this can give us no assurance that its offspring will approach perfection, unless it comes of a race of fowls approaching perfection.

That "like produces like" is true only in a general sense, and it is fortunate that such is the case, otherwise there could be no change and no improvement.

It is in fact impossible that it ever should be so in an absolute sense, for as every animal has two parents, and no two animals are in all respects alike, the offspring could not possibly be precisely like both. As a matter of fact the animal usually favors one or both parents in certain particulars, but is never an exact reproduction of either. It always bears a general likeness to the two races, from which it springs, and the resemblance to a remote ancestor is oftentimes striking. That is, an animal is liable to inherit the peculiarities not of its immediate progenitors only, but of any one of an indefinite line of ancestors. Perhaps in reality it inherits traits peculiar to each and all of them, and hence in a marked degree traits common to all. The laws of inheritance apply not only to the animal organization as a whole, but to the internal structure of its various organs as well, and to the extent that these internal organs conform closely to some fixed type they will be transmitted unchanged to posterity. Hence, an animal may in certain particulars strongly resemble its parents and yet differ from them in a marked degree in others. For instance, the relative position of the wing bones and the structure of the heart are practically identical in all fowls, yet size, form and plumage vary greatly.

There is, therefore, an inherent tendency to change in all animals throughout their entire organization, but vastly more marked and, therefore, important in certain directions than in others.

The factor which more than any other induces change and emphasizes the tendency toward variation is a change in the conditions of life, and on the other hand that which tends to change a nation is in those conditions pronounced. This fol-

lows from the constant effort of nature to adapt an animal to its environment, and this adaptation at times involves the structure of the most delicate internal organs. Even the structure and form of the bones may be profoundly altered, though the process is extremely slow. On the other hand, unchanging conditions tend to produce unchanging types. It has been found that the longer any organ, trait of character or distinguishing feature remains unchanged, the less slowly is change induced under varying conditions, and that when once an animal begins to vary in any part, the tendency to vary becomes more and more marked.

Where the blood of two races is commingled, which differ to the extent of forming varieties of the same species, the offspring does not, as a rule represent a simple fusion of characteristics of the two races, but is as it were, compounded of distinct traits, each referable to one or the other of the two races; yet so governed by fixed laws that the crossing of two fixed race types will give uniform results. But if two such cross-bred animals be mated, the new type is liable to go to pieces during the first two or three generations. Crossing, as it were of necessity, owing to the new conditions imposed upon two stable races, induces a tendency to violent and rapid changes which is with difficulty checked.

From what has been said, it will be seen that the process by which a new variety of poultry is produced is the reverse of that by which an old one is perfected. In the former case radical changes in the conditions of life are introduced, most powerful among which is the union of established varieties by crossing. In this way nature is forced into new adaptations to correspond to the new conditions, and out of the many new tendencies which result the breeder may choose that which best suits his fancy. On the other hand, to perfect an established variety, the conditions of life must be as uniform as possible, especially must there be no crossing with other established varieties. And since varieties of fowls are but strains intensified, it is only birds of the same or similar strains that give the best results when mated; that is, the best results as far as the perfecting of the type is concerned, but the results may be very unsatisfactory in the way of decreased vitality where the mating involves close inbreeding.

Whatever the inbreeders may say to the contrary, the fact remains that the tendency of inbreeding is to reduce vitality, by which we mean the power of resisting the various destructive agencies to which nature, if free to act, subjects all animals. Most likely no evil consequences would result from inbreeding if nature were allowed to take a full hand in working out results, and it would be possible to produce a race of inbred birds as hardy as the hardiest scrubs or mongrels. The advantage which the scrub possesses over the inbred bird and over pure bred birds generally is that while the owner of the latter is concerned with fine points of form and plumage, nature delves into the internal organization of the scrub, into its very bones and marrow, and destroys, ruthlessly and mercilessly, everything that falls short of her standard of vitality, and only birds of the strongest constitution can stand the strain. Poor digestive organs, a weakened heart action, or delicate lungs may not prove fatal to a bird that is housed and fed and

cared for as tenderly as a child and the bird may live to transmit its debilitated constitution to its progeny; whereas a scrub, if so weakened, can count on no such care. It must live on what it can find to eat: it must go to roost unfed and unwatered; it must withstand cold and dampness, storms, floods and excessive heat; it must fight with its fellows and dodge its enemies and take its part in the endless struggle for existence. To the extent that it is weak it is likely to perish and leave the field to stronger birds.

Here is the mistake that the fancier makes, and will apparently continue to make for a long time to come. We can hardly expect him to turn birds over to the rough usage of nature, which score close to one hundred points. He cannot be expected to pry too closely into their constitutions and naturally looks to the show room for his prizes. No judge can score a bird on its constitution; only nature can do that, and she has trouble in getting at the fancier's birds.

No doubt, the fancier can get the better of nature for a time by keeping the selection of his birds in his own hands, but in the end nature is destined to get even with him and to invade his flocks when least he expects it. Not that nature objects to fine birds; on the contrary fine points of form and color are things she keeps steadily in view, as all wild animals bear witness. But she is not content with a one-sided development. The bird of the finest plumage is sacrificed in her search after strong vitality, but in the end she secures fine plumage as well. Not only so, but in the end she gives to the bird of rugged constitution a brilliancy of plumage, a lustre of eye and beak and a carriage which weaker birds never attain.

The trouble with the fancier is he handles too few birds; his flocks are too small. While nature is making her selections out of millions, the fancier is making his from a dozen or fifty birds. Nature produces with riotous abundance and destroys remorselessly all that are diseased or feeble. She will devastate a continent to find a few animals that can withstand a new disease. While the fancier is hunting up prescriptions and preparing mixed dishes and finding shelter for his fowls, nature is doing her utmost to destroy the very ones he is most anxious to save. Nature says in effect to the fancier: "Your most beautiful specimens are not your most vigorous birds. I supply the variations from which you may select such specimens as may please you best, but the maintenance of the vigor of your birds rests with me. I alone can choose between a strong bird and a weak one, but in order to make my selection effective I must be allowed to put in operation those agencies of destruction by which the strong are culled from the weak."

Man selects for form and beauty, nature for strength, and as perfect beauty only comes with perfect health and sound constitution, the best results can only be obtained when nature is allowed to play her part.

Geographical and climatic changes produce variations, breaking up existing types and inducing at times long enduring changes. Hence the disappointing results that often follow the shipment of birds or eggs long distances. Prolific layers fall to the level of mongrels and eggs from large strains hatch chicks which fall short in weight. Both birds

Poultry Breeding in Maine.

The poultry breeders of Maine have long been handicapped by their remoteness from poultry exhibition, and by the absence from most communities of one fancier, at least, who by his knowledge of what constitutes standard bred stock could give his amateur neighbor fancier points. As a result, each one in many communities who has developed a desire to breed fancy poultry has followed out his own uneducated ideas, with unfortunate results in far too many cases. What has played the greatest havoc with a possible success has been the haphazard mingling of blood from this, that and the other breeder. I asked one enthusiastic breeder of barred Plymouth Rocks whose strain he was breeding (for though the word "strain" is a terribly over worked word, there are, nevertheless, certain distinct families of this breed in the country). He made reply that he had bought of Mr. So-and-So in the beginning. Then he had introduced fresh blood from another breeder, well known in the poultry world. His last infusion of new blood was from the flock of a New Hampshire breeder whom I had never even heard of as a breeder of this variety. "After these years of breeding," he added complacently, "I think I have a right to call it my strain." I think no one would have disputed the claim with him. It was all his own! Such an instance is of interest, since it shows the ideas that a man gets who is far away from shows and from other fanciers with whom he might compare his stock. His stock looks very fine to him, because he does not realize how first-class stock should look, and does not understand the principles of breeding that would enable him to mate his stock for best results.

It is most unfortunate that Maine has had so few poultry shows, while other states have kept abreast of the times in this respect.

The State Fair at Lewiston has been of some assistance, but only to the comparative few who could attend and so learn wherein their own stock failed by comparing it with the prize winners. The man who has sent his birds to the State Fair in years past, and was not able to attend himself, has received absolutely no benefit from the show, as no score cards came back with his birds to show wherein they were off in fancy points, and even the winning of a ribbon showed him absolutely nothing as to his birds. Better methods and better birds have appeared within the last few years. Competent judges have been secured, and the entry of a lot of culls has been discouraged.

But Maine has not had for a dozen years an important winter show. A few shows have been held in the extreme eastern portion of the state, but these have been necessarily local in their influence. The fanciers of the state have needed a representative state show, and this seems now assured in the show that it is proposed to hold next December at Lewiston. I trust this will be a score card show, for whatever may be one's opinion respecting the merits of score card or comparison judging, there ought to be no question as to the value of score card in the case of amateurs. The great bulk of those who will exhibit at Lewiston, will enter their birds at a winter show for the first time. The score card, if made out by a careful, conscientious judge, will show these exhibitors just where they stand; where their birds fail,

and how badly they fail. They will then go to work to remedy these defects.

Now, I do not wish it to be inferred from what I have said that the majority of those breeding fancy fowls in Maine are amateurs. We have some very skillful breeders here, though they do not blow their own horns as loudly as do some breeders elsewhere. A few Maine birds win at Boston every year, and I have known of honors being bestowed at New York on a Maine bred bird,—but the man out of the state who bought him, of course, got the credit. I do not know how many other birds have gone from the same yards to get honors for other people, but this I do know, that there are light Brahmas, barred and white Rocks, silver and white Wyandottes, Houdans and Sebright Bantams in the State of Maine that would prove creditable representatives in any show in the country.

The light Brahmas of Mr. C. S. Newell, are good enough to show anywhere on earth, and their owner is an expert in all matters pertaining to the breed, as he has shown again and again, while judging at Boston. Mr. Newell breeds large numbers of Brahmas and the beautiful color which he secures would delight the hearts of all light Brahma cranks.

The Langshans of Mr. Geo. P. Coffin have brought back many ribbons from the Boston shows, and will hold their own anywhere. Mr. Coffin is the efficient secretary of the new State Poultry Association, and its coming exhibition will be greatly indebted to his effort.

The Houdans of Rev. Mr. Peterson, are truly of the high class sort. I have seen these birds in their home yards, have reared some of this stock myself, though I do not now breed Houdans, and I speak moderately when I term them top-notchers. Their first prize record at Boston and Philadelphia is official proof that my judgment is all right. Mr. Peterson breeds lots of the black pigment into his stock, and so does not have a lot of washed out Houdans to show after their first moult. The beauty of this breed, and their great practical value, should make them more popular than they are.

At the last State Fair at Lewiston I was greatly pleased with an exhibit of silver Wyandottes that had the real Sebright lacing, and the silver Sebright, at that, for as everyone knows, the silver Sebright has a narrower and cleaner lacing than its golden cousin. These silver Wyandottes were fine in shape, and the plumage, as I have said, was of the most "open" type. They were living proofs of the wisdom of progressive breeders in trying to get away from the dark small centered specimens of years ago. These beautiful birds were exhibited by Mr. Silas Bartlett, a veteran breeder of this variety, and a Boston winner. Mr. Parke Dingley is getting together a fine stock of white Wyandottes and will be heard from, undoubtedly, when the show season comes around.

The white Wyandotte seems to have the lead in popularity throughout the State of Maine, not so much on the part of fanciers, but of the semi-fanciers who want nothing but pure bred stock about but want that stock rather for utility than for beauty. Fifteen years ago one would hardly find anything larger than an eight-by-ten poultry house in a week's ride through Maine. Now in almost every town are long houses and big flocks of utility breeds to attest to the increased interest in the breeding of fine fowls.

The conditions in Maine are ripe for I real boom in the poultry industry, and a confidently look to see this materialize in the near future.—*Webb Donnell, in American Stockkeeper.*

Buff Cochins Bantams.

Being somewhat of a crank on Buff Cochins Bantams, and believing them to be a general purpose or utility breed of fowls, the editor of the POULTRYMAN has requested me to give the readers some information regarding this variety and my experience with them on Riverside Farm where we have bred them for several years.

The Buff Cochins Bantam came originally from Pekin, China, and were called "Pekin Bantams" until a few years ago, when breeders dropped the word Pekin and substituted the word Cochins as the birds resemble the Buff Cochins fowl in shape, color, etc. They were brought to England among other spoils taken from the Royal Summer Palace at Pekin when it was sacked by the Anglo-French expedition in 1860.

As the birds originally came to us they were well mixed as to color, but by careful handling by our best breeders, we have originated what we might call a distinct breed—a miniature Buff Cochins.

I have found them to be quite hardy, very good layers, laying eggs as large as those laid by some strains of Leghorns. They are a very quiet variety bearing confinement in close quarters better than any other breed we ever had.

The eggs hatch well and it is an easy matter to raise the chicks to maturity. They mature and are laying before the large breeds have got their growth. The hens are good sitters and excellent mothers. I have had hens with chickens that began laying one week after they hatched a brood of chickens and staid and brooded their young for several weeks while laying.

This breed is admirably adapted for city people who have not the room for the large breeds. They can keep a dozen Buff Cochins Bantams in a large dry goods box where they could not keep three birds of any of the large breeds. Under such conditions the city breeder might not be able to produce all the eggs a large family would consume, but could get good fresh eggs from the table scraps as well as enjoying a pleasant pastime. If the birds are bred up to the Standard, they may be made quite profitable as there is a ready demand for good specimens at good prices. Sometime in the future we will tell how we raise them, feed, breed, care for, and house them.

E. B. BLETT.

Belding, Mich.

Poultry Notes.

Skim milk is better than water to mix their feed with. They will also dispose of some meat to good advantage, if fed in small quantities.

If they are disposed of while young, ten weeks is about the right age to sell them at, as they dress more easily than later on.

Rain and heavy dew is as disastrous to the young ducks as they are to young chicks. Even a slight shower will drown them.

Over-fat hens are better out of the flock than in it, so sell any that are too fat for business.

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The columns of this paper are open to communications concerning anything in which our readers may be interested. Contributions and questions on Poultry or Fruit topics are solicited, and our readers are invited to use the paper as a medium for the exchange of ideas of mutual interest.

SEPTEMBER, 1901.

Our friends may be surprised to see the name of our paper changed, but it is a step that has been contemplated for some time. As other changes in the paper were made necessary by circumstances of no interest to the reader, although to us unavoidable, we decided to close Vol. II. of the *Poultryman and Pomologist* and commence Vol. III. as the *Eastern Poultryman* and for the future confine the reading matter to poultry only.

We have certain plans under consideration for the improvement of the paper, and while we shall make no extravagant promises, we shall endeavor to present each month a paper filled with interesting and practical matter, and to that end have arranged with several capable writers to contribute such articles.

The "Practical Questions of the Day" department will be resumed with our next issue and our readers are invited to ask or answer any question in which they are interested.

Readers are invited to make any suggestions of changes or new features that would make the paper of greater value. THE EASTERN POULTRYMAN is published in your interests and we want to hear from you.

The poultry business of to-day is one of the greatest of agricultural pursuits, and the utility side of poultry culture has become recognized by the fanciers of all varieties, and on the other hand, those who are breeding utility poultry find as much profit and more pleasure in having their stock approximate the standard requirements. The breeding and management of such stock is what the poultrymen of the East are aiming at, and a knowledge of which THE EASTERN POULTRYMAN will endeavor to disseminate.

trymen of the East are aiming at, and a knowledge of which THE EASTERN POULTRYMAN will endeavor to disseminate.

The Maine State Poultry and Pet Stock Association's Advance catalogue has been issued, and we shall be pleased to send a copy to anyone interested.

The regular premium list will be issued in November. Liberal prizes will be offered on all varieties of poultry, pigeons, Belgian Hares, cats, etc.

The dressed poultry and egg exhibit will be under the charge of the Lewiston and Auburn Grocers' Association. Liberal prizes and free entries in this department should make it a popular feature. There will also be a poultry dressing contest, a banquet tendered by the Board of Trade, and a Poultry Institute held by the State Board of Agriculture. The members of the Association will also have instruction in caponizing and other studies, by an expert. Every poultryman in the state should join this live and progressive organization.

Poultrymen who attend the Maine State Fair are invited to call at the headquarters of the State Poultry Association which will be in a large tent. Officers of the Association will be in constant attendance, and will give information regarding the Association. Come and see us.

A GREAT LAYING AND HATCHING RECORD.

Over 700 chicks raised this season from a single pen of fifteen females.

Facts are stubborn things, and actual experiences or careful experiments made by competent persons, and the records noted by a shrewd observer are the sources from whence have come the practical knowledge of all the sciences, professions and industries.

This will apply to poultry keeping as well as to any other business and the progress that is being made is due primarily to the observations of practical men. The improvements made in incubators, brooding systems and other appliances calculated to reduce the labor connected with the work, and the great improvement made in the utility lines as well as in the standard qualifications of the various breeds are all indicative of the serious thought and careful observation by the student of the problems. An instance has recently come to our notice in which is to be seen, not only a carefully kept record but it also shows that the "man behind the hen" was capable of getting a good production of eggs and raising therefrom a large number of chicks.

In December 1900, the writer received

from an Illinois breeder an order for a Black Langshan cockerel with a description of what was desired in comb, toe feathering, etc, and especial stress was given to the points of vigor, health, etc.

We selected a bird that corresponded with our interpretation of his wants, and in due time received a letter acknowledging receipt of the bird and highly complimenting our selection as to fancy points, and the statement "he appears to be a perfectly healthy fellow and well worthy to head my flock."

Under date of July 15, he wrote as follows:

"It may interest you to know how I succeeded with the cockerel purchased from you and as I feel quite proud of the record made by my flock of fifteen females headed by this male, I send you this statement of their work. The flock consisted of fifteen females bred from prize stock, eight of the number being hens from one to three years old, and seven of the number were pullets hatched in April, 1900.

The egg yield was as follows: February, 221; March, 302; April, 293; May, 232; a total for the four months of 1048 eggs. As I wished to raise as many chicks as possible this year, I intended to set every egg laid, but my practice has been to discard all that are not of good shape, etc, as well as to see that no cracked eggs are set. For these reasons 88 eggs were discarded leaving 960 eggs for hatching. These were set under hens and during the period of incubation the hens broke 32 leaving 928 eggs from which in due time hatched 731 chicks. Of these I have lost from various causes 28 chicks, so that my present number is 703 all of which are growing finely and there will be very few culls. I feel highly elated over my success in raising so many chicks of such quality from a single pen. One of my neighbors last year raised 400 chicks from a pen of fourteen Buff Leghorns, and his success was considered phenomenal by the poultrymen in this section, but now as they look over my flock and see "Prince Charles" with his lordly appearance, and then examine the hatching and laying records of the flock, they are wondering if it would not have been possible to secure 1000 chicks sired by one male if a few more females had been mated with him.

I have for a long time believed that poultrymen were keeping too many males, and that it is better to cull closely and breed for quality, not only for show quality but intrinsic value as measured by the scale of utility. For the next season I shall select the same number of females for breeding purposes, and keep no males with the two hundred pullets that I shall keep for egg production. The use of the trap nest will be in the future as it has been in the past year; my method of selecting the layers and in order to be admitted to the "inner court" or breeding pen, the pullet must have laid before December 15. This is her first test. She is later scored by a competent judge and her standard qualifications recorded, and this with her egg record for the laying period, determines whether she shall receive the "full honors" and perpetuate her memory by being allowed to leave a numerous offspring. The individual records of my breeding pen this year for the four

months above noted (120 days), was as follows: 96, 90, 87, 82, 81, 77, 76, 74, 71, 71, 64, 56, 50, 42, 31. The highest record made by any since Jan. 1 (196 days) is 127 eggs. Two of the pullets have as yet shown no signs of broodiness. Three of the lot were set and hatched broods of chicks and were shortly "broken up," and resumed laying. They were set early in May so it is possible the figures might have been changed slightly if they had not been allowed to set.

I am deeply interested in the record system of mating, and this year marked the eggs laid by two of my highest scoring hens, and hatched them separately and punched the feet of the chicks. This was additional work, but I shall try next season to extend it to all eggs laid during the breeding season. In my study and application of the trap nest principles I can see great possibilities for improvement, and shall endeavor to follow its guidance, and it now seems that with this method of breeding Black Langshans the "200 egg hens" will be numerous and if they are mated with males of such vigor as the noble specimen now in front of my window, the breed should stand at the head in all the utility qualities as well as in beauty."

We believe that our friend is on the right track. His success as indicated, shows more than appears on its face. It shows that his methods of feeding and management are such that the birds are kept in a strong, healthy condition, otherwise the egg production would have been smaller, and there would not have been such strong fertility and healthy chicks. And yet he is giving the *breed* the credit of his own work and knowledge of breeding.

It is easy to think of what someone else—our neighbor or ourselves would have done with these same birds. Would the average reader of this paper have secured so many eggs from the birds in the time indicated? Could the average poultryman handle a flock of over 700 birds with a mortality of less than four per cent? They would not do these things. It is really the skill of an expert, whose art has been devoted to building a strain of birds of unusual vigor, and these birds have been handled according to his ideas of proper management.

It shows that "the man behind the hen" is a capable one in this line and that his methods would be safe to follow.

Shall The R. I. Reds be Admitted to the American Standard of Perfection?

MR. EDITOR:

I note in the May number of THE POULTRYMAN AND POMOLOGIST that Mr. E. T. Perkins, says he would like to have the Rhode Island Reds admitted to the American Standard of Perfection. And I would say in this connection that this is the prevalent desire of nearly every breeder of the Reds in the West, and we believe it not only desirable but absolutely essential in order that this truly splendid fowl may achieve the success its merit entitles it to. In the Farm Poultry of July 1st, I have suggested a standard for R. I. Reds, that has met with a large measure of approval and all lovers of the

breed are cordially invited to give it a thorough examination. Of course, we hardly expect this standard as submitted to please all, as I find a very large and varied assortment of ideas as to what the correct R. I. Red should be. Some will prefer an extremely dark red bird and some a lighter bright red bird. Some want a rather small one, others desire a bird not much below the Wyandotte in size. Again, some must have the female the same color as the male, while with others a fairly good buff will do. It is now nearly four years since I became interested in the Reds and during this time I have given them a very careful and thorough study, and the standard as presented very nearly represents the results of my investigations. But we certainly cannot expect that all will be equally pleased no matter what standard is finally adopted. We should however, be willing to surrender some preferences for the sake of harmony. Let us agree, even at the expense of some cherished ideas. As a rule, fanciers are a "stiff necked generation," etc., and inclined to insist on our individual preferences, forgetting that all do not look through the same colored spectacles. What we want now is to have the Rhode Island Red made a standard fowl and thus give it a standing it cannot otherwise well attain. Suggestions are in order now gentlemen, but please avoid harmful personalities and let your remarks be to the main issue, namely: a Standard Rhode Island Red.

Yours truly,

ROBT. S. TAYLOR.

Port Huron, Mich.

We shall be pleased to publish the opinions of our readers upon this question, and invite a free discussion. Our personal feeling is that the Club that has fostered the breeding of this variety, and held it firmly in the course laid out, should determine the time when application should be made to the American Poultry Association for admission to the standard, and until such time we sincerely hope that those who have in mind the best interests of the breed, will refrain from making the application for standard recognition.

As a breeder of Rhode Island Reds, we looked to the Club to shape their destiny. As a member of that club we have expressed our opinions regarding changes in the Club Standard, and in the interest of both the breed and the club, we should recommend that the club settle upon a definite, fixed standard for the breed, and then *as a Club* apply to the American Poultry Association for the recognition of the breed and asking the adoption of the Club Standard.

Ground corn and wheat bran, half and half, makes a good feed for the young ducks.

They are very fond of grass, and only rye or wheat makes good pasture for them.

Plenty of water to drink, but none to swim in, will give the best results. Minks, turtles, etc., are very fond of young ducks; do not let them go to the slough or creeks.

Killing Chicks With Kindness.

Every year we become more convinced that a great many little chicks are killed by kindness. We hesitate to say this fearing some of our readers will think we are advocating lack of attention. Nothing of the kind is meant. What we mean is that over-anxious attendants let their anxiety for the welfare of their tender little charges lead them into doing for them things that are injurious instead of beneficial.

Nature is not a kind mother; she does not pet and "coddle" her children, but forces them to go to work at once or suffer. The little partridge or quail does not find ready for its delectation, delicious morsels of feed nicely cooked and spiced with condiments, but must hunt with its mother for seeds, bits of green stuff, eggs of ants and other food. This gives it exercise, adds to its strength and promotes its vigor and general capacity to endure the troubles of early life.

For several years we have not fed our little chicks any soft feed except once in a while by way of giving them a variety. Our experience this year confirms our belief that it is not necessary to do so.

We breed bantams and have only the limited range to be found in a suburban town for our flocks. After we mated our pens we compelled the little fowls to work for all the feed they got. They were fed wheat, corn, beef scrap and table scraps and every other day each pen was given the run of the lawn, thus supplying them with green stuff. Alongside the pens a little patch of sweet corn was planted and some sunflowers in another place.

When the hens became broody they were set in box nests. Five hens were given fifty eggs. One of them was shut off her nest about twenty-five hours after she had been sitting ten days. From the fifty eggs we got forty-six chicks. A predatory cat got four of the chicks and every one of the remainder are alive and now old enough to be considered safe from the troubles of chickenhood.

From the time they were three days old these chicks have been allowed to run at liberty with the hens that hatched them. They have been fed only steel-cut oats—pinhead oatmeal—beef scrap, wheat and water. They run in a small garden and in the shade of the corn and sunflowers, and although the weather has been very hot they do not seem to mind it at all.

They have had once in two or three days whatever stale bread had accumulated about the house, but not enough of this to make any difference with them for good or evil.

Not half a dozen of these chicks have ever been touched by human hands. They have been fed three or four times a day, have had plenty of pure water and have prospered amazingly. As bantams are considered rather tender we are convinced it is best not to worry too much about chicks. Provide liberally for their wants. Do not feed too much soft feed, give them a chance to take exercise where there is plenty of clean grass and cool shade, and they will do the rest—growing up so as to become the pride of and a comfort to their owner.—*Commercial Poultry*.

Goslings take less food than either chicks or young turkeys, and grow so fast that they soon reach an age where they require only to be allowed to run on a pasture and take care of themselves.

Mating and Breeding.

With all classes of thoroughbred live stock the principles of breeding and the systematic record of pedigrees forms an important part of the work of the breeder and by close observance of these details the greatest progress is made. The same rules are just as applicable to poultry, and the breeders who are working along these lines are securing results that indicate the possibilities that lie in this direction. Mr. C. S. Mattison in an article in the American Buff Wyandotte Club Catalogue says of pedigree breeding:—

"I like to know as far back as possible the ancestry of all my breeding birds. It enables me to mate them up more understandingly, as, for instance, I would not think of mating pullets whose sire had a large comb to a male who had the same defect in comb just the reverse. I would select females whose sire had a small comb. The same can be said of all the different sections. All birds fail in some section and should be mated to such as were strong in this particular point and had descended from those who were also strong in that particular. No one can tell by the looks of a frog how far it can jump or by the looks of a pullet how well she will breed. We should have some way of securing her eggs when laid, setting them that we can mark her chicks when hatched, that at maturity we can know which of our hens are our producers. These can be retained, and those whose chicks are worthless can either be discarded altogether or mated to another male the following year. Often one finds the best exhibition birds are not the best breeders; that the poorest feathered female in the mating produced his best cockerels; that did he not know she was a good producer he would have sold her at his first opportunity, as, from an exhibition standpoint, she was his poorest, and not caring to carry over all his seasoned breeders he would select his best and dispose of the others thus disposing of his best through ignorance.

"Very often we notice that several of our best cockerels closely resemble each other. They have the same sort of a good comb. The same is true regarding pullets, and, did we but know it, some one hen has produced them all. Did we know her, how valuable she is in more ways than one. Suppose all her sons come with good combs, and you have a male that is a cracker-jack, excepting in comb; that you mate him to this hen that produces good combs, are not your chances of improvement far greater than in any other way you can go at it? Again, take it in breeding males, there is a marked difference in own brothers, in their production. For an illustration, allow me to use some of Vermont's horses, who are highly spoken of, to illustrate this point. There are two very good sons of Daniel Lambert, who, by the way, is considered a first-class sire. His two sons, Ben Franklin and Addison Lambert (own brothers), were much admired and strong rivals, Addison Lambert finally proving his superiority as to speed performance, and was, in consequence, well patronized with the best mares. When the colts of these two own brothers were developed, it was discovered that Ben Franklin was the best producer, and, to make a long story short, he was sold for ten thousand dollars, and Addison Lambert changed hands at one thousand dollars. It was the producing qualities that made one worth ten times as much as the other. Again, when Senator Stanford was look-

ing around for sires to head his stock farm in California, with plenty of means at his command, he secured what was then considered the best stallion of the day, in Mohawk Chief. He also purchased his brother, Electioneer, at a much less price. Mohawk Chief was bred to all the best mares, and when the progeny of these two sires were developed, Electioneer colts were much the better, and in time he became the greatest producer the world ever has seen. So great were his producing qualities that Mr. Stanford has said, without contradiction, that he never sired a colt that couldn't trot in 2.30 or better. The same facts are true in breeding cattle and sheep. All successful live stock breeders retain a producing sire until they develop a son to replace him. One that has been tried and not found wanting. It seems to me that in all branches of breeding the pedigree of the stock is carefully guarded, except in breeding poultry, and here we find the most haphazard methods employed with the most haphazard results.

"It doesn't seem to me to be experimenting when we endeavor to get our breeding down to a system, or on a basis where we can profit by last season's mistakes. What we should strive to accomplish is to breed the greatest number of good birds from the least number of chicks hatched, and not to resort to a large quantity, in hopes a few good ones will crop out. Much more satisfaction is derived from raising a few good birds from a few birds hatched, than from many hatched. If I wanted to purchase a cockerel and had the choice of two, one whose dam was known to be either a producer or an exhibition bird, and the dam of the other was unknown, who would not make choice of the one having the former dam? Many a calf is sold on the fact that its dam made so many pounds of butter in a given number of days, and the greater the record of the dam the more money her sons are worth. And when they demonstrate that they produce heifers that are heavy milkers, seldom can one be purchased at any price.

"It seems to me, brother fancier, that we are not progressing as rapidly as our brother breeders who have taken up cattle, for instance. To be sure our hen will not live as many years as their cow, yet we can demonstrate her producing capacity in one season, to their being obliged to wait three or more. Who ever heard of a hen selling for a good round sum, simply because she was the dam of one or more first prize winners, a cock bird that was the sire of winners? And why not? Until we place this value on our producers, the rank and file of our breeders will stick to the old "good enough" way to the detriment of our variety. In breeding dogs, after a dog has made a certain number of wins at exhibitions that have a certain number of entries, he becomes known by the fact. Think they are termed Challenge class. The Belgian hare is pedigree known, and yet our poultry goes on in the same old way handicapped by the lack of attention on the part of their breeders to this vital question."

Eleven Years with Buff Leghorns.

I have been breeding and showing this variety now eleven years. My first start was with pure white tails and wings. In 1893 I purchased a cockerel that gave me a true start, and since then great

improvements have advanced, and there is plenty of chance yet for new improvements. During the eleven years, we have learned much about this valuable breed, and know, by actual experience, we have more to learn yet. The buff color is harder to breed than almost any other color, as the judges in almost all cases have different ideas what said color should be. I have heard breeders recommend to purchase nothing but pure buff birds. We would like to know how many pure buff birds these breeders have seen. It seems to me — I may be wrong — that when we get pure Buff Leghorns, we will have them scoring 94 to 96, as common as the Whites and Blacks. If we are right, then we have not the pure buff we want, or the judges are not giving them their just dues. Our opinion is that the judges are giving them about what they are worth — from 90 to 94³/₄, with a chance for us to improve. We have only seen, now and then, a bird honestly worth 94 to 95 in females, and they are as near buff as we believe we have today. So, when you are purchasing, do not think you can get the simon pure ones for any small price, in females or cockerels either. How many so-called pure Buff Leghorn cockerels ever proved to be good cocks? We have yet to see one. In most cases the good cocks, when they were cockerels, were chestnut or bronze in tail and wings, and, as cocks, this comes in lighter, which makes a fine buff. We have found, in our breeding, that a cockerel with chestnut or bronze in tail will throw as near pure buff offspring as we have seen. This is no guess work, but fact; also, females with black in tail, mated with a cockerel with buff tail mixed with white, will bring pure buff now and then. Any of these matings will bring you all the white you want, and more than we all want. For a good breeding bird give me a cockerel with chestnut, bronze, or even some black; on good females will produce a nice lot of show birds. If you can get a pure buff cockerel with strong tail and wings, he is worth his weight in Klondike nuggets. A great deal, in getting good birds is the care, attention and feed. It is one-half the making of a show bird. This labor commences from the time the chick is hatched until it enters the show room. The chicks must have shade, and they can't have too much. We feed good, yellow corn, and plenty of it (would not feed white corn if it was given us), wheat, oats, pumpkins, carrots, buckwheat, sunflower seeds, oil meal, potatoes and cabbage, and the last, plenty of green bone. Six weeks before show season we separate all cockerels from the females and put each show cockerel in small coops, and handle them once a day to tame them down, as the Buff Leghorns are high flyers, and when we first put them in the pens for winter, and enter the coop, they remind us of little yellow balloons, popping up all over.

The Buff Leghorn is not the greatest fowl before the public — there are others just as good — but they are by no means the poorest, either. They are a beautiful breed, full of life and activity. Take a nice pen of them out on the lawn and they are admired by all, as the cockerel resembles "the only pebble on the beach." They are great layers — laying just as many eggs as any Leghorns — and for size they are larger, therefore laying a larger egg.

Last season we raised seventy birds at home, with only six cull cockerels and eight cull pullets. We consider this

breeding as good as most of the old standard breeds, and shows that they are not breeding all culls. They are quick growers, the cockerels crowing at six or seven weeks old, and females begin laying at five and six months, keeping it up all winter if given proper care and a warm place.

We hope that every person interested in this popular breed will join the American Buff Leghorn Club, as it only costs \$1.00, and the benefits are worth five times the cost to the members and the breed.—*Geo. S. Barnes, Battle Creek, Mich.*

Chickens for the Early Shows.

Taken as a whole, it can hardly be said that the quality of the young stock we see at the summer and agricultural shows is up to a standard which might be reached if fanciers set themselves to work with the object of improving these exhibitions. Probably the reasons are not far to seek. In the first place the leading exhibitors of poultry are more concerned about the blue ribbons to be won at the Dairy and Crystal Palace exhibitions, and prefer to keep their best young stock at home instead of running the risk which would be incidental to sending them to the summer shows before they are fully developed and thus mar their chances at the great National exhibitions. Then, again, it may be that the prizes offered at agricultural shows scarcely pay for the trouble of competing; and there is a third reason, too, inasmuch as the promoters of agricultural shows are generally more or less of the stolid old farmer type, and turn a deaf ear to counsel from those who understand the classification of poultry and their management at shows. However these things may be, it seems rather a pity that agricultural shows are not better supported in the way of poultry exhibits, for there is no reason why the difficulties that have been enumerated should not be overcome. It would never do, of course, to send chickens to the summer agricultural shows which are intended to be competitors at the Dairy and the Palace; but there seems no reason why other birds should not be available, for a practical man can tell pretty shrewdly which of his birds are likely to be Palace winners and which are only fit for the summer shows. The other points, prize money, etc., are matters for the local poultry clubs to take up in connection with the agricultural societies of their districts. If there were more energy displayed by the poultry societies which are scattered about all over the kingdom in the direction of extending their influence (to the lessening of the energy which is invariably displayed in quarreling inter se) it would be to the benefit of the societies as well as of the agricultural shows they might support.

Now a few words about preparing chickens for exhibition at summer shows. It will be obvious that the first essential is early hatching, but not too early, as a bird may be hatched on New Year's Day and yet not be as forward as another bird hatched on the first of March. Management and method count for everything. The largest number of summer shows take place in July and August. A bird hatched on the 1st of March is four months old on the 1st of July. If a pullet of one of the prolific breeds, it will almost be ready for laying by that time; by the 1st of August it

probably will be laying if it is a Leghorn. Looked at in this light, the question of early hatching seems easy of settlement. The bird hatched on the 1st of January has the keenest part of the winter before it, and will never really develop to the extent that a bird hatched a little later will, when the keenest part of the winter is over, or nearly so. It is not the first three or four weeks of a bird's life that tell in its development; it is the period commencing at the age of about a month, when it has become covered or almost covered with feathers, and is acquiring a capacity of looking after itself; so that a bird hatched on the 1st of January is a month old at the beginning of February, and then is ready either to go forward or to turn back, and the chances are that it will turn back on account of the severity of the average weather in February and March; but the case is different with a bird hatched on the first of March. When he arrives at the age of about a month—the time for going forward or turning back—he has before him the sunshine of April (for April very often is a warm month.) Therefore, our later hatched bird can have what the earlier hatched one cannot have—a straight run from the shell to maturity without any "pull backs," so that it does not follow that the man who hatches his chickens the earliest is the man who will be the most successful at the summer shows.

What are the points required, or what should be the points required at a chicken show? Should the main point not be that of development—the most forward bird—the bird showing greatest promise in regard to frame and build, with markings only of secondary consideration? Of course, the Standard would vary in different breeds, in some more consideration could be given to the color, etc., than in others, as, for instance, in the case of the Buff varieties of poultry in the Standard for which color counts for so much; but in the case of the Dorking, Indian Game, Black Red Game, Langshan, Minorca, or, in fact, almost all breeds, with few exceptions, development—shape and style—these should be the points, for it is practically useless to take any notice of their color since they will moult, or most of them will, before the great national shows, and the color may be quite different then. There is no better example of this to be found than in the case of a Plymouth Rock, which may be perfect in color as a chicken, but may have become quite messy by the time the Dairy show is reached.

Development, then, being the great point to aim at, it becomes necessary that selection should be made from the chickens as they are hatched, and likely birds be attended to with a view to their being entered for the summer shows. They ought to be kept apart and be specially fed, a dietary being arranged for their particular benefit. The sexes should be separated, because they grow so much better when they are apart than they do when they are together. As regards food, this should comprise a fairly liberal allowance of lean meat—fibrine meat—say about 10 per cent in the soft food. The best grain will be oats, as there is more that is frame growing in oats than in any other grain. Medicinal preparations are not required at all except in the case of birds with great reach and length of limb, and then a small quantity of hypophosphites will be useful in order to strengthen the bone

formation, the best thing being some capsules of cod liver oil with hypophosphites. The birds ought to have plenty of exercise and should be kept from the hot rays of the sun, which, if color is to count for anything, will rapidly deteriorate the quality of the plumage from an exhibition point of view. On the other hand, too close confinement will keep them back altogether. It seems hardly necessary to enter into other details—the elements of poultry keeping will be sufficiently understood by those who are at all interested in this subject, and it is chiefly with a view to drawing attention to the patronage extended at present to the summer shows that stylish Silver Sebright.—*W. M. Freeman, M. P. S., in the Fanciers' Gazette, England.*

PRACTICAL POULTRY CULTURE.

Begin on a Small Scale and Give Personal Attention—Value of Cross-breeds.

It is well before starting in the poultry business, either as a business or for pleasure, to face the fact that every one cannot raise fowls, that is—properly raise them. I never realized this fact half so much as during the past three years. I have had most of my fowls raised for me, because of ill health. I have been so disappointed at the failure of my fowls to develop as I expected, basing my expectations upon the blood and years of successful breeding in my own hands, that I have concluded to sell only what I could raise myself and no more. It takes study and work to raise poultry, and there are many ups and downs connected with the business, especially downs.

The poultry business is by many supposed to be a small business—not worth the thoughts of educated men and women, nor of our agricultural colleges. Consequently the government has neglected its duty in this connection to such a degree that we have few facts or figures to go by, but it is estimated and acknowledged now to be a fact that poultry industry is equal to or greater than any other one branch of agriculture. In 1895 it was estimated that averaging each at twelve cents per dozen we had \$218,000,000, or the price of 1,820,000,000 dozen eggs. Alongside of these figures put the value of dressed poultry, which was estimated at 258,871,125 chickens, 10,544,080 turkeys, 8,440,175 geese, 7,544,080 ducks and the price estimated at 50 cents each makes a total of \$360,690,730. Of course these figures did not include the "fancy trade," or the sale of eggs and thoroughbred fowls for breeding purposes.

The west is destined to be the great center of the poultry product. We lack the favorable markets of the east, but the cost of production is much less and we have especially arranged cars for quick transportation to the best markets of the United States.

The claim that large capital must be invested before we can make a success is not altogether true. Any one can raise fowls who understands a few essential things, and adheres strictly to them. The first is range for properly developing them: shade, grass, water, comfortable houses or coops for the young and an absence of vermin are other necessary accompaniments to success. I should rather condemn than advise any one to invest largely in poultry and houses unless he has the experience to carry him

through. The proper thing to do is to commence at the bottom of the ladder and gradually work up. Have some other occupation that will give you time to devote odd moments to the fowls. In this way you can soon tell when it will pay to devote all your time to fowls. It is a very fascinating occupation, and whoever allows himself to once become enthused with the "fancy" will never wholly recover from the fever, no matter with what occupation he may become involved or what profession he may take up he will, in his back yard, or elsewhere, keep a pen or two of fine fowls.

The first question to be decided by the would-be poultryman is: What to make a specialty of—eggs, market poultry, or both? If you wish to take up the business merely for profitable pleasure make a specialty of one or more of the fancy breeds, so-called, but where dollars and cents must be counted, we recommend only one breed. We breed only light Brahmas and Bronze Turkeys, and aim to breed only the very best, but we have in addition Langshans, Plymouth Rock and Leghorn hens crossed with Brahma and Langshan cockerels for market purposes. The cross of Langshan and Brahma makes the best market fowl; Plymouth Rock and Brahma cross comes next. They make very large market breeds and lay large, brown eggs and plenty of them. I like Brahmas exclusively and have never been able to raise enough to supply the fancy trade so far. I had three hundred Brahmas raised for me this year on a separate farm, but the party does not believe in insect powder, and greased her early chicks and lost them; for the remainder of the year she let them go, so they had scaly legs, were inferior in size, the rich metallic black color all sapped from the feathers by lice, so the profits and the year's expectations were a disappointment. My turkey crop proved unsatisfactory the same way in outsider's hands, so I shall raise my own fowls in the future.

I never use anything but insect powder to keep my chicks free from vermin. I use it in nests, on the sitters and on the laying hens, from the first of February on. I run the roosts over a blaze of fire once a month, and I am never troubled with lice or mites.

I find a cross of Light Brahma on Barred Plymouth Rocks or Black Langshans makes a rapid grower, a fine roaster, a fine, clear, plump dressed fowl; the cockerels tender and juicy at seven to nine months of age. The main gain in crossing two breeds is, strong, healthy offspring, but as a rule we do not advise it, for so many who commence end up by making scrubs out of their fowls in three or four years. We have crosses that weigh nine to eleven pounds each that are excellent layers of large brown eggs. Our Leghorn crosses are not much larger than the Leghorns, but excellent layers. I like the larger cross because the difference in eggs does not make up for the loss in pounds of meat on a dozen fowls at market price. I do not find any cross I ever tried more hardy than the Light Brahma bred pure.

I advise anyone to breed the fowl they most admire, for where the heart is there we will be. The person who undertakes to raise poultry on a large scale must look strictly after every little detail, and expect few holidays. The business demands close application, and is best personally attended to. The hired man has been the cause of many failures. The breeding stock is the foundation of the

business, not fine houses, hence they should be bred and selected with care. They must be raised with plenty of room, for if our chickens do not grow up strong and healthy we cannot expect success. The importance of vigorous breeding stock cannot be overestimated.

There is a doubt in some people's minds as to the comparative laying powers and fertility of eggs from hens or pullets. We have demonstrated to our own satisfaction that the early hatched pullet given a chance for a satisfactory growth, and development, makes the better spring and winter layer, and the eggs hatch well but the chicks are not quite so large, nor do they grow so fast, as those from hens' eggs, neither will they develop into so large a fowl.—*Reliable Poultry Journal*.

Profit in Raising Geese.

That geese are not oftener raised for profit is a surprise to one who is accustomed to having them. Nothing in the line of poultry requires less care and expense in the rearing, and nothing brings in handsomer returns. On the other hand, nothing is so complete a failure as geese, without a proper knowledge of their peculiar requirements. They need but little shelter, and except when young or being fattened, no food but grass. They are very hardy, live to an old age, and are a positive benefit to the land after the grain is off. In three different ways they bring in revenue,—by the sale of the fowls, their eggs, and their feathers. Goslings reach maturity early and take less expensive food than any other kind of poultry. The young goslings rarely die except by accident. They are good layers for eight or ten years,—some say for life,—especially if the gander is changed every two or three years.

A gander should never be kept longer than three years, as young ganders insure greater fertility in the eggs. On the contrary, a goose of three years or over will lay more eggs and more fertile ones than will a younger one. In goose raising there is the further advantage that a large number can run together without proportionally decreasing the profits, as with other fowls.

For breeders, select large birds and those having a record as being early and good layers. Of most varieties mate one gander to two or three geese, possibly to four. An Embden gander will care for eight or ten, and an African for from 15 to 20.

A low shed, open to the south, with straw on the floor, is all the shelter they usually need. They lay early in morning and should be penned until 9 A. M., in order that all the eggs may be gathered. Boxes and barrels on their sides make good nests for them, or lacking these, geese will make their own nests of the litter on the floor. They lay from 20 to 30 eggs the first year, 25 to 40 the second, and at maturity, which is three years, will often lay 50 eggs per annum.

The eggs should be set under a hen or in an incubator. If under the former five are plenty, though some set as many as seven. The period of incubation is from 30 to 34 days. On the 26th day place the eggs for a minute in water of 104 degrees temperature and then replace in the nest. They should be set early in the season, as heat is bad for young goslings. The shells are so tough that one often has to help the little things into the world.

They can be plucked four or five times a season, though some pluck them every six weeks, except during the laying sea-

son. They yield from 1 to 2 pounds of feathers a year, which range in price from 40 to 75¢ per pound. In order to see whether the feathers are "ripe" for pulling, pick one out here and there. If they come out without hard pulling, and if no bloody fluid adheres to the quill they are in right condition.

Of the different varieties the Toulouse are about as good as any. They are easily confined, as they are too heavy to fly and too large to get through a good fence, are strong and hardy, small feeders and good layers, commencing to lay early. They grow rapidly, are gentle and quiet, weigh well, have good feathers, and many of them. The principal objection to them is their color, which is gray.

The Embdens are white, very hardy, weigh as much as the Toulouse, mature a trifle earlier, and are better mothers. The Chinese are the best of all layers and have a graceful, swan-like look on account of their long necks, but are too small to be very profitable. The Africans grow the quickest, lay as many eggs as the Toulouse and have very nice flavored flesh. They are little known in the west, but are great favorites in the east, many preferring them to any other breed.—*Edgarda Williams Cole in American Agriculturist*.

Raise Ducks.

Ducks pay handsomely if kept properly. America's largest poultry plants are exclusive duck ranches. If a farmer has time and love for the work, and the proper sandy soil, he can fatten his Pekin ducklings to the acme of perfection as the large farms do, but he must get up early, make his mash uniform and feed only what is eaten up clean and quickly. Feed left over is an appetite destroyer and causes sickness if left to sour. If your ducklings shall weigh 5 pounds when 10 weeks old, feed regularly, four times per day at least, and provide grit, shells and plenty of fresh drinking water. Water to swim will hinder the work of fattening.

Hereditary Tendencies.

Continued from Page 6.

and eggs become adapted to certain localities.

Nature seems at times to possess the power of provision. Thus, the Italian Leghorn hen when transported to the north of Europe is said to double her egg yield during the first year, instinct teaching her that the colder winter will carry off more of her chicks and that provision should be made for more.

Heredity has left its mark in the feathering of birds. Thus, we find the Mediterranean class feathering quickly, the Asiatics slowly. The tendency to vary is seen in the long drooping wings of weak Leghorns and Minorcas, which probably results from an effort of nature to keep the chick warm. This is true in a less marked degree of other varieties.

Acquired characteristics are not inherited. The freezing of a cock's comb has no effect whatever on the combs of his offspring. The change must come from within; from a tendency of nature to alter the form of the comb, experimenting, as it were, in this direction and that and quickly following up any variations that promise to work to the bird's advantage.—*American Poultry Journal*.

To make cows pay, use Sharples Cream Separators. Book "Business Dairying" and Catalogue 245 free. W. Chester, Pa.

Children and Poultry.

Parents should teach their children to take an interest in all domestic stock and none is quite so well adapted for children as poultry. They can be petted, handled, caressed and fed without trouble or risk. The gathering of eggs is a pleasure for the children and they should be taught to handle carefully all eggs that are to be used for setting purposes. If we commence early in life to teach children, or anything else as far as that is concerned, we can usually teach them to our notion, but if put off too long we cannot succeed so well. You remember the saying about the crooked sapling. What pleases little children better than when the little "peeps" break through the shell and disclosed the little soft downy balls, and how their eyes glisten with childish glee when they can put the little chicks in their hands and talk to them. There is no pleasure that children enjoy better than caring for young broods if they have been trained a little in that direction. The responsibility of tending them, the pride of owning them and the prospects of making some money from them are strong inducements to lead young people into the chicken business. Give the boys and girls a chance and you will be surprised how they take hold of the business and what good fanciers they make. It is that the raising and keeping of choice fowls embodies a vast amount of care and labor, but the pleasure, useful knowledge, industrial tact and health-giving enjoyment will lead us all on in the poultry business. Once a fancier, always a fancier. Our circumstances may be such that we cannot keep fancy poultry, but a true case of the fever never dies.

HAVE PLENTY OF ROOM.

It appears that the stumbling block to raising poultry on a large scale is the diseases they contract when placed in large flocks and allowed to run, eat and roost together. It seems that fowls do much better when divided up in small lots and the reason for this is well understood by most of the old breeders. Flocks of forty or fifty will do all right together, but if two or three hundred are allowed to run together, even with the best of care and attention, they do not do so well. With unlimited range and roomy hen houses I believe a hundred of fowls could be kept together with fair success, but usually people who go into the chicken business on a large scale do not provide the necessary roost room and free range. If we have twenty fowls we will give them a roosting room ten feet square, and a scratching and laying room perhaps ten by twenty feet. If we kept two hundred fowls, would we provide ten times as much space for them? The chances are we would not, but their quarters would be crowded and we would not give them the relative amount of care, feed and attention that we would a small flock. When we increase the size of our flock everything else must be increased in proportion. There is no use trying to oppose the sanitary laws of nature for sooner or later we will learn better to our sorrow. Fowls must have plenty of pure air, plenty of room, exercise and proper attention or they will not do well, and the great secret to keeping a large flock they never have the full benefit of all the things mentioned. Unlimited range is not absolutely necessary for a flock of chickens, to do well, but they must not be restricted in space without the proper exercise or they will fall off on egg production. The farm is the best place to keep poultry

BREEDERS' CARDS.

Under this heading cards of forty words or less will be inserted once for 40 cents, four times for \$1.00, or one year for \$2.50, always in advance. For extra words add one cent per word per insertion. Each initial or figure will count as a word. No changes allowed on four months' ads. Cards will be run in uniform style and without display. Full amount must accompany copy, or the advertisement will not be inserted.

PLYMOUTH ROCKS.

JOHNSON BROS., 131 Leland St., Woodfords, Me., have Rudd Strain Barred Rocks, Vaughan White Wyandottes, R. I. Reds and Buff Cochins. Eggs, 75c per 13. Poultry supplies, lowest prices known. Grit 35c per 100. O. shells 45c per 100. Samples and circular free.

EUGENE K. GERRY, Sanford, Maine. Breeder of Single Comb Brown Leghorns and Barred Plymouth Rocks. Won 1st and 2nd prizes at Rochester, N. H., and 1st and two specials at Amesbury, Mass. Eggs, 15 for \$2.00.

AMERICAN DOMINIQUE.

AMERICAN DOMINIQUE, C. N. Paige, Frankestown, N. H., has decided to sell eggs from his best pens at \$2.00 per 13. From good pens at \$1.00. Also from a fine pen of Barred Plymouth Rocks at \$1.50. Satisfaction guaranteed.

LEGHORNS.

S. C. WHITE LEGHORNS. Large extra layers. Won first cock, first and second pullets, Lynn, Mass. 1900; also first for best large white eggs. Choice S. C. Rhode Island Reds also. Eggs 15, \$1.00. Write. HARRY NUNAN, Cape Porpoise, Maine.

BUFF LEGHORNS. (Arnold and Cornell) Buff Plymouth Rocks (Hawkins). Won first and second on cockerels at Barre, Dec., 1900; score 92. First and second pullets; score 91-2. Rocks equally as good. Eggs \$2.00 per 15, \$5.00 per 45. F. H. TOWNE, Montpelier, Vermont.

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Old Homestead Brooders. "Best on Earth." Indoor, Outdoor, Top Heat, Fire Proof. Will raise every chick. Illustrated Catalogue free. OLD HOMESTEAD BROODER CO., Middleboro, Mass.

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R. I. REDS. Prize stock of unexcelled quality; have purchased the well-known stock of Geo. C. Chase, and now have as fine a flock of Reds as can be found. Fine cockerels \$1, \$2, \$3, and \$5 each. W. H. HATHAWAY, Assonet, Mass.

RHODE ISLAND REDS, Barred Rocks, Buff Rocks, and White Wonders. Stock always for sale at reasonable prices. Eggs from pens of prize winners at Boston, Fall River, and New Bedford. \$2.00 per 15. D. B. EDDY, "The Poplars," Somerset, Mass.

RHODE ISLAND RED Rose Comb Cockerels that are red to skin. Buff Plymouth Rock Cockerels that are buff to skin, and Buff Cochins Bantam Cockerels. Stock and Eggs in Season. F. H. CLARK, 66 Nashua Street, Manchester, N. H.

HANSSON'S REDS won at Boston 1901. Eggs from strong, vigorous stock, \$2 per 15. Incubator eggs \$5 per 100. My White Wyandottes are bred for eggs. They are regular egg machines. Eggs, \$2 per 15. ANTHONY A. HANSSON, Maplewood, Mass.

RHODE ISLAND REDS. Prize winning stock bred for utility as well as quality. We are getting ready to sell our yearling breeding stock. Write your wants. Get your stock of parties who make it a study and specialty. We make a specialty. Satisfaction guaranteed. RHODE ISLAND RED POULTRY YARDS, 24 Stanton St., Malden, Mass.

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A. H. BROWN, Lyndonville, N. Y. Breeder of Buff Wyandottes, Handy's strain of heavy laying Single Comb White Leghorns and Buff Cochins Bantams. No 1. stock for sale. Eggs \$2.00 per 15. Write for prices on stock. A. H. BROWN, Lyndonville, N. Y.

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Hicks' Barred Plymouth Rocks.

Prolific layers of large brown Eggs, bred from Boston prize winning stock. Farm raised and none better. Eggs for hatching, \$1.00 per 15 from my best pens. Incubator and large lots at short notice a specialty.

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The best general purpose fowl in America. Two prizes at Milford, N. H., 1901. All shown scored above 9. My birds are large, white and handsome. Nine pens of superb females mated to large, vigorous cockerels. Eggs for hatching, \$1.50 per 13; \$4.00 per 40; \$6.00 per 100.

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where they can forage over the fields, gardens, orchards, and enjoy the sunshine and cool shade of the orchard and lawns. Here they have the pure air and room and wander about straw stacks, barns and granaries.

When fowls have their liberty and a free range in spring, summer and autumn they will pick up nearly their entire living. The animal, insect and vegetable life they obtain will compose much of the material that is contained in an egg. Where all the conditions are right a hen will lay more or less from early spring until moulting time. During the moulting season and while they are taking on new plumage, hens should not be expected to lay very many eggs if any. To have an abundance of eggs it is necessary to learn the properties of the different kinds of food and feed to suit the conditions, etc. In warm weather feed less carbonaceous or warmth-giving and fattening properties, and more nitrogenous or flesh-forming material. During the winter months reverse the plan. The feeding of fowls for egg production is a science and if you go at it in a hap-hazard, hit or miss plan you will not likely succeed in reaching the highest point of egg production.—*Practical Poultryman.*

The very early hatched bird is apt to molt with the old stock in the fall. It is also apt to lay heavily all winter and as a result will not produce eggs which will hatch as strong and vigorous chicks as those from birds that begin to lay in January or February.

It is easy to tell the hen that is profitable. She has a red, highly colored comb, is full of activity and life. Those in first class market shape should be sold at once; they are a detriment to the others, as they take up valuable room.

Leg trouble is often caused in brooder chicks by either too much or too little heat in brooder, or it may result from over feeding.

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A low, open shed is all the shelter geese will need in the coldest weather.—*Farmer's Advocate.*

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Have demonstrated during the past season that there are.

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Winning in the hottest competition. At the New England Fair won every prize on Rose and Single Comb, Fowls and Chicks. The same at "Ould Newbury," including a special for the **largest** and **best** exhibit of any breed in the show. At Amesbury, on three entries, first and second on fowls, first on chicks; on two entries at Brockton, won first and second. At Haverhill show, 120 R. I. Reds in competition, won 20 regular and special prizes. At the great Boston Show, on three entries, won four Ribbons including **first** and special on R. C. Pullet.

Stock for sale at reasonable prices.

Member
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Golden Wyandottes,
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Silver Gray Dorkings.

Eggs, \$2.00 per setting.

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Magpies and Booted Tumbler Pigeons.

Have one pen of late hatched...

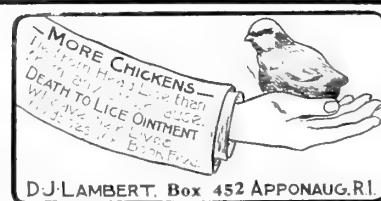
Golden Wyandottes.

From this pen, Eggs, \$1.00 per setting.
Stock for sale.

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Next season, eggs from best pens will be \$2.00 per setting.

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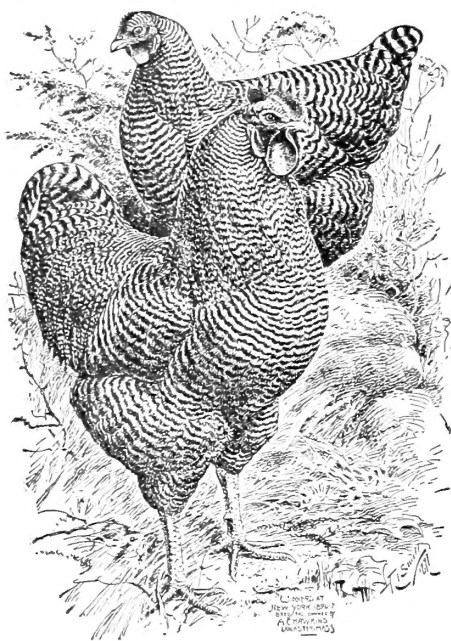
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At the Great National Show, WASHINGTON, D.C., in hot competition with over 300 birds of these varieties, the best that could be found regardless of price, I won 45 Regular and Special Prizes on 39 Entries, including First Prize on Breeding-Pen in each variety, Special for Best Display in the American Class, Special for Best Exhibit of Plymouth Rocks, Sweepstakes Special for Best Cockerel in the show (Bantams excluded), and this on my First Prize Barred P. Rock Cockerel. My winning White Wyandotte cock was pronounced by the judges to be the best they had ever seen. I won twice as many first prizes as all other exhibitors of these varieties. My **BUFF ROCKS**, at BOSTON, 1899, in hot competition, won more first and special prizes than all others. My customers are winning all over the country. If you want the BEST, write me. Hundreds of Choice Exhibition and Breeding Birds at honest prices. Catalogue of America's finest Plymouth Rocks and Wyandottes free.

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